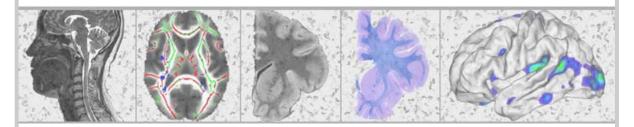


#### **ECTRIMS NEWSLETTER**

May 2017



## Letter from the President



Welcome to the second ECTRIMS newsletter of 2017. Being already in the month of May, I begin by highlighting that this year's World MS Day is May 31st. World MS Day is an excellent initiative of the MS International Federation and its members to raise awareness of MS throughout the world. For further information see (http://www.worldmsday.org/)

Plans continue to proceed well for this year's Congress (MSParis2017). As happens every three years, the meeting this year is being held jointly with ACTRIMS. It will be the 7th such joint meeting and will take place in Paris on October 25th - 28th. Comprehensive Scientific and Teaching Course Programmes have been established and further details of these are available on the website, along with other information relevant to the meeting (<a href="https://www.ectrims-congress.eu/2017/scientific-programme/scientific-programme.html">https://www.ectrims-congress.eu/2017/scientific-programme/scientific-programme.html</a>). The deadline for abstract submission is May 31st. This year, ECTRIMS will be providing a limited number of rooms at a very reduced rate for non-profit, non-governmental specialty groups or organisations in the MS field that may want to hold a meeting at the time of the Congress. For further information, see (<a href="https://www.ectrims-congress.eu/2017/">https://www.ectrims-congress.eu/2017/</a>).

ECTRIMS keeps busy with a number of regular activities other than the annual Congress. This year's Focused Workshop on the topic of "Advancing Trial design in MS" was held in Rome in March in association with the Progressive MS Alliance. It was a very successful, informative and interactive two-day meeting. This month (May 2017), the third ECTRIMS Regional Teaching Course was successfully held in Vilnius, in conjunction with the Baltic

MS council. In June, the 5th ECTRIMS Annual Summer School, which is on "Rehabilitation and Symptomatic Treatment in MS", will take place in Santiago de Compostela. The summer school programme and faculty will provide an excellent educational experience for the attendees. Plans are already underway to hold further Regional Teaching Courses in 2018, along with a Focused Workshop and Summer School. Warmest thanks to all my Executive Committee colleagues for their leadership for taking forward these activities.

The 2017 round of ECTRIMS fellowship awards was recently decided. There were many very good applications this year and a total of 10 fellowships have been awarded as follows: Post-doctoral Research Exchange Fellowship (4), Clinical Training Fellowship (3), ECTRIMS-MAGNIMS Fellowship (2) and MS Nurse Training Fellowship (1). Elsewhere in the newsletter you will find reports from several previously awarded fellows.

I hope you find this newsletter enjoyable and informative. David Miller

#### **Topics**

- Letter from the President
- World MS Day 2017
- ECTRIMS Focused Workshop 2017/9 10 March 2017 in Rome, Italy
- ECTRIMS Regional Teaching Course/ 11 12 May 2017 in Vilnius, Lithuania
- ECTRIMS Summer School 2017/ 13 15 June 2017 in Santiago de Compostela, Spain
- ECTRIMS Fellowships 2017
- Reports of ECTRIMS Fellows
- Meeting Dates

## World MS Day 2017

#### What is World MS Day?

World MS Day, which will occur on May 31st this year, brings the global MS community together to share stories, raise awareness and campaign with and for everyone affected by multiple sclerosis. World MS Day is the only global awareness raising campaign for MS. Every year, the MS movement comes together to provide public with information about MS and to raise awareness on how it affects the lives of more than 2.3 million people around the world.

In 2017, the theme for World MS Day is "Life with MS". As life with MS can be difficult and each day brings its new challenges, valuable tips for living well with MS will be made available.

Since its inception in 2009, the World MS Day has grown from strength to strength, reaching hundreds of thousands of people in more than 78 countries worldwide and continuing to grow every year.

#### How can you get involved?

Read more about World MS Day at <a href="http://www.worldmsday.org/">http://www.worldmsday.org/</a> and learn about how you can take part in the World MS Day.

## ECTRIMS Focused Workshop 2017/ 9-10 March 2017 in Rome, Italy

The ECTRIMS 2017 Focused Workshop took place on March 9th and 10th in Rome. The topic was "Advancing Trial Design in Progressive MS" and it was held in association with the International Progressive MS Alliance. There were about 50 participants encompassing a broad range of expertise, including clinical neurology, neuropathology, trial design, statistical, pharmaceutical, regulatory and lay viewpoints. Themes included treatment targets; trials to date; clinical outcome measures; interim outcome measures focused on neuroprotection that included MRI, OCT, CSF, neurophysiology and PET; trial designs and statistical analysis; insights from big datasets and ongoing phase 2 trials; and pharmaceutical and regulatory considerations. There were didactic presentations and ample time was allocated for round table and open discussions. The workshop covered a lot of ground and there were many lively discussions. It is proposed that the proceedings will be published as a series of short papers in a themed issue of the Multiple Sclerosis Journal with authors coming from amongst the workshop attendees. We thank Jeremy Chataway and Bob Fox for being the guest editors on this publication.

## ECTRIMS Regional Teaching Course 2017/ 11-12 May 2017 in Vilnius, Lithuania

ECTRIMS regional teaching courses have been established in 2016. After two successful teaching courses in St.Petersburg/Russia and Dubai last year this educational activity continued this year with the third teaching course in Vilnius/Lithuania. The course was organized by the ECTRIMS Teaching Course Committee in close collaboration with the Baltic Neurological community. The programme covered basic aspects of MS like the involvement of genes and environmental factors in the pathogenesis of MS and the immunopathophysiology of MS. The main focus of the teaching course was practice relevant topics including differential diagnosis, treatment monitoring and discussions about the rationale for switching or escalating therapies. The teaching course was well attended with 90 participants. The active interaction and high quality of the presentations made this teaching course again a great success, which is also exemplified by a very positive feedback from the participants.

For further information on upcoming teaching courses and detailed programme please visit the ECTRIMS Website here.

# ECTRIMS Summer School 2017 / 13 - 15 June 2017 in Santiago de Compostela, Spain

The 2017 ECTRIMS Summer School on "Rehabilitation and symptomatic treatment in multiple sclerosis", organized in collaboration with RIMS, will take place in Santiago de Compostela, Spain, on June 13th – 15th.

The target audience is represented by high-potential young researchers and clinical experts from different backgrounds (neurologists, rehabilitation physicians and multi-disciplinary therapy team) who want to generate and implement best evidence-based treatment and rehabilitation care.

Through formal presentations delivered by international experts, interactive, multidisciplinary group discussions and multi-disciplinary group work on research projects, this course will provide an update on the framework of rehabilitation and available evidence for the effectiveness of motor and cognitive, as well as emotional symptomatic treatment and rehabilitation interventions in MS.

Moreover, it will cover epidemiology, physiopathology, diagnosis and evidence base behind the various pharmacologic and non-pharmacologic approaches to the management of MS symptoms, which in most cases requires multidisciplinary input. The course will pursue as main learning objectives understanding the indications and concepts of symptomatic treatment and rehabilitation, and its effects on the patient everyday functioning, integrating evidence from multiple disciplines into clinical case management and identifying key research questions and challenges for clinical implementation of holistic symptomatic treatment and rehabilitation.

## **ECTRIMS Fellowship 2017**

ECTRIMS offers a comprehensive range of fellowship programmes for different target groups.

In 2017 10 new fellowships were awarded:

#### ECTRIMS Postdoctoral Research Fellowship Exchange Programme

**Dr. Gloria Castellazzi (Italy):** 2-year fellowship at UCL Institute of Neurology, Queen Square MS Centre, Department of Neuroinflammation, London, United Kingdom, under mentorship of Prof. Claudia Gandini Wheeler-Kingshott. Project: Developing a clinical decision system based on characterising shared and specific functional features of MS subtypes.

**Dr. Joanna Marczynska (Poland):** 2-year fellowship at University of Southern Denmark, Neurobiology, Odense C, Denmark, under the mentorship of Prof. Trevor Owens. Project: Mechanisms suppressing autoimmune responses in the central nervous system.

**Dr. Kyla McKay (Canada):** 2-year fellowship at the Karolinska Institutet, Clinical Neuroscience, Stockholm, Sweden, under the mentorship of Prof. Jan Hillert. Project: The causes and consequences of paediatric multiple sclerosis: A population-based study.

**Dr. Emanuela Oldoni (Italy):** 2-year fellowship at KU Leuven, Department of Neurosciences, Leuven, Belgium, under the mentorship of Prof. An Goris and Prof. Bénédicte Dubois. Project: Multiple sclerosis heterogeneity: patient-to-patient variation in cerebrospinal fluid biomarkers

#### ECTRIMS Multiple Sclerosis Clinical Training Fellowship Programme

**Dr. Nuria Cerdà Fuertes (Spain):** 1-year clinical training fellowship at the University Hospital Basel, Neurologisch-Neurochirurgische Poliklinik, Basel, Switzerland, under the mentorship of Prof. Tobias Derfuss. Project: Evaluation of clinical bedside tests (primitive reflexes e.g. palmomental reflex) of MS patients in correlation with neuropsychological tests.

**Dr. Giordani dos Passos (Brazil):** 1-year clinical training fellowship at the University of Oxford, Nuffield Department of Clinical Neurosciences, John Radcliffe Hospital, Oxford, United Kingdom, under the mentorship of Prof. Jacqueline Palace. Project: Are there differences in MS severity, as assessed by MRI and clinical parameters, between different racial and ethnic groups?

**Dr. Pietro Maggi (Belgium):** 1-year clinical training fellowship at the Lausanne University Hospital, Department of Neurology, Lausanne, Switzerland, under the mentorship of Prof. Renaud Du Pasquier. Project: High field gradient echo MRI enhances the differentiation between multiple sclerosis and other inflamatory disorders: a further step beyond the concept of "no better explanation".

#### **ECTRIMS Multiple Sclerosis Nurse Training Programme**

**Macarena Rus Hidalgo (Spain):** 6-months fellowship at the IRCCS Foundation Carlo Besta Neurological Institute, Neurology 4 Unit-neuroimmunology and neuromuscular disorders, Milan,

Italy, under the mentorship of Prof. Prof. Silvia Rossi. Project: A multicentric randomized PRAGmatic trial to compare the effectiveness of fingolimod versus dimethyl- fumarate on patient overall disease experience in relapsing remitting Multiple Sclerosis: novel data to inform decision-makers – (PRAG-MS).

#### ECTRIMS-MAGNIMS Fellowship Programme in MRI in Multiple Sclerosis

**Dr. Soheil Damangir (Sweden):** 1-year fellowship at the VU University Medical Center, Amsterdam, Netherlands, with collaboration at the Vall d'Hebron University Hospital, Barcelona, Spain under the mentorship of Dr. Vrenken and Prof. Barkhof. Project: Optimizing crowd-sourced solutions toward generating large reference datasets for WM lesion segmentation in MS.

**Dr. Marcello Moccia (Italy):** 1-year fellowship at the UCL Institute of Neurology, National Hospital for Neurology & Neurosurgery, Queen Square, London, United Kingdom under the mentorship of Prof. Ciccarelli and Prof. Barkhof. Project: Improving longitudinal spinal cord atrophy measurements for clinical trials in multiple sclerosis by using the Generalised Boundary Shift Integral (GBSI).

## MSIF-ECTRIMS McDonald Fellowship

Starting in 2016, MSIF (Multiple Sclerosis International Federation) and ECTRIMS jointly support a 2-year McDonald fellowship every year. This fellowship is offered to young researchers from emerging countries and enables the recipient to travel to an established research institution anywhere in the world to work with leading researchers in the field of MS. It is intended that these fellows return to their home countries after finishing the fellowship program to establish their own research using the newly learned techniques.

For more information regarding the fellowship program and for application please visit the MSIF webpage: <a href="http://www.msif.org/research/awards-grants-and-fellowships/mcdonald-fellowships/">http://www.msif.org/research/awards-grants-and-fellowships/mcdonald-fellowships/</a>

Application deadline: 30 June 2017

## Reports of ECTRIMS Fellows

#### ECTRIMS POSTDOCTORAL RESEARCH EXCHANGE FELLOWSHIP



## **Fellow**Ana Luisa Falcão PhD – 2015 Awardee

Research Topic

Epigenetic states underlying oligodendrocyte precursor differentiation in Multiple Sclerosis

#### **Fellowship Institution**

Karolinska Institute, Department of Medical Biochemistry and Biophysics, Stockholm, Sweden

#### Mentor

Dr. Gonçalo Caselo-Branco

#### **Fellowship Duration**

2 years

Summary as ECTRIMS Postdoctoral Research Exchange Fellow 2015 - 2017

The research objective of this fellowship project was to understand the epigenetic mechanisms underlying oligodendrocyte precursor cell (OPC) differentiation during development and in Multiple Sclerosis (MS). In the first part of the project we investigated the role of citrullination in oligodendrocyte (OL) differentiation and myelin maintenance. Citrullination is the conversion of an arginine to the neutral citrulline, a process mediated by Peptdidylarginine Deiminases (Padi) and found induced in MS. We have uncovered the PADI2-mediated citrullination targets in OLs and found that both cytoplasmic and nuclear proteins are citrullinated, such as myelin proteins and histones. Our study shows that PADI2 citrullination impacts on proper OL development acting as an epigenetic regulator through histone citrullination, but also displays other functions in the cytoplasm and myelin as observed by its interaction with several myelin proteins. In a second part of the project we have performed single cell sequencing profiling in OL lineage cells isolated from the brain and spinal cord of the MS mouse model EAE, and from healthy controls. We observed a remarkable segregation between cell populations from controls and diseased animals that discloses many targets of the disease.

We are currently preparing the 2 manuscripts describing the findings from these projects and we have recently published part of the results from the single cell RNA-seq profiling in OLs (Marques et al, Science).

#### **ECTRIMS CLINICAL TRAINING FELLOWSHIP PROGRAMME**



**Fellow**María Isabel Zuluaga MD – 2015 Awardee

#### **Research Topic**

The effect of hormonal changes on women MS risk and prognosis

#### **Fellowship Institution**

Centro de Esclerosis Mútiple de Catalunya – CEMCat, Barcelona, Spain

#### Mentor

Dr. Mar Tintoré

#### **Fellowship Duration**

6 months

Summary as ECTRIMS Clinical Training Fellowship Programme Fellow 2015

I developed my ECTRIMS Clinical training fellowship at the CEMCat. During these months, I participated in activities of patient care and clinical research. My project was to investigate the possible association of reproductive background, hormonal changes and environmental factors in the risk and prognosis of MS. We found that age at menarche was not associated with an early CIS, neither with the risk of second attack or accrual disability. We also found that pregnancy before or after CIS did not modify the risk of CDMS or accrual disability. Regarding environmental factors, we found that vitamin D deficiency and smoking are risk factors for disability progression in the BARCELONA CIS cohort.

I'm very thankful with ECTRIMS, my mentors and co-workers at CEMCat; this experience had enriched my professional and personal life, and also will positively impact the care of MS patients back in my country.

#### ECTRIMS-MAGNIMS FELLOWSHIP IN MAGNETIC RESONANCE IMAGING IN MS



#### **Fellow**

Arman Eshaghi MD, PhD - 2015 Awardee

#### **Research Topic**

"To explore imaging phenotypes of patients with multiple sclerosis using 4-dimensional voxel-based morphometry"

## **Fellowship Institution**

UCL Institute of Neurology, National Hospital for Neurology & Neurosurgery, Queen Square, London, United Kingdom

#### **Mentor**

Prof. Olga Ciccarelli

#### **Fellowship Duration**

1 year

<u>Summary as ECTRIMS MAGNIMS Fellowship in Magnetic Resonance Imaging in MS Fellow</u> 2015 - 2016

During my ECTRIMS-MAGNIMS fellowship, I collected a big dataset of more than a thousand patients with multiple sclerosis, who have been followed longitudinally. I looked at the temporal and spatial evolution of brain atrophy. I looked at the differences of atrophy across

neuroanatomical regions in multiple sclerosis phenotypes, and baseline imaging markers to predict disability accumulation in advance of time. This fellowship allowed me to work in a truly multidisciplinary environment, where I worked in between the UCL Institute of Neurology and UCL Department of Computer Science to learn computational methods and apply them in neurology. I presented my work as a platform presentation during ECTRIMS 2016 in London and was awarded "the Best Oral Presentation Given by a Young Investigator". I have prepared the results of my fellowship as a manuscript, which is now submitted and is under peer review.

## **Meeting Dates**

#### **ECTRIMS Summer School 2017**

Santiago de Compostela / Spain: 13 – 15 June 2017

## MSParis2017 - 7th Joint ECTRIMS - ACTRIMS Meeting

Paris / France: 25 – 28 October 2017

**ECTRIMS 2018** 

Berlin / Germany: 10 - 12 October 2018

We are looking forward to seeing you in Paris!



## Please be aware of fraudulent organisations!

## **WARNING**

There are an increasing number of fraudulent websites that impersonate MSParis2017. We would like to alert all participants to be aware of possible scams and to strongly advise you to only use the official MSParis2017 registration and ECTRIMS accommodation agency Congrex Travel.

#### **ECTRIMS Executive Committee**

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B. Hemmer, Munich/DE, Vice President
M. P. Amato, Florence/IT, Secretary
T. Derfuss, Basel/CH, Treasurer & Newsletter Editor

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